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REASON & REVELATION

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The background of the cover is a close-up photograph of a tree trunk cross-section. The concentric growth rings are clearly visible, with a warm color palette of oranges, yellows, and reds. A prominent vertical crack runs through the center of the image, passing through several rings.

Do Tree Rings Prove an Old Earth?

Fornication
Defined

BIBLES for
Graduates

Do Tree Rings Prove an Old Earth?

Jeff Miller, Ph.D.

Article In Brief...



Tree ring analysis of the oldest known living trees on the planet is said to disprove the Flood and biblical Creation. Upon deeper examination of the evidence, however, the alleged ages of the bristlecone pine trees and Old Tjikko are likely much younger than publicized and pose no problem for the biblical Flood or the young age of the Earth, as implied by the Genesis genealogies.

SKEPTICS have argued that there are bristlecone pine trees alive today that are older in age than the date of the biblical Flood and even a Norway Spruce tree (“Old Tjikko”) whose assigned age is pre-Creation week.¹ If so, these trees would have had to survive the Flood (estimated to have occurred roughly 4,300 years ago) and possibly even precede the Creation Week (estimated to have transpired 6,000-8,000 years ago)—a major problem for the biblical Creation model’s assertion that deep time is incorrect and the Universe is young. How do creationists respond to this challenge?

First, the oldest living bristlecone pine tree to date was announced in 2013 as being 5,062 years old (making it roughly 5,074 years old in 2025).² However, notably, its location is being kept secret (allegedly somewhere in California’s White Mountains³) and its age has not been able to be confirmed by other scientists.⁴ The second oldest tree is also a bristlecone pine, nicknamed “Methuselah,” and is thought to

be roughly 4,850 years old.⁵ The tree nicknamed “Prometheus” or the “Currey Tree” (HPN-114) was chopped down in 1964 by Donald Currey and was found to be 4,844 years old at the time, based on assessment of its tree rings,⁶ presumably making its germination date over 4,900 years ago. Do these trees disprove the biblical timeline?⁷

SUB-ANNUAL TREE RINGS?

To answer that question, one must first understand some basic information about dendrochronology. Dendrochronology is the science of studying tree rings, assessing their ages as well as climates in the past. Tree ring counting is considered to be a very reliable science for dating wood since, today, one ring is generally known to form in a tree for every year that the tree has lived. However, when sub-annual tree ring growth occurs (i.e., more than one ring forming each year—called “false rings”⁸ or “intra-annual” rings), the ages of trees will be inflated and, thus, erroneous.⁹ Sub-annual tree ring growth is now understood by

dendrochronologists to be common, especially in dry climate trees (like bristlecone pines).¹⁰ In fact, “in some trees of certain regions and in some years...the intra-annuals actually outnumber the annuals.”¹¹ Based upon their study of some 67 trees from 25 species, they found that well over 63% of the trees revealed sub-annual tree ring growth.¹² In fact, they revealed that in their “work, something like 99 percent of extremely thin, entire growth layers and lenses are **intra-annual**. The effect upon chronology of counting these thin, entire growth layers and lenses as true annual increments is quite obvious.”¹³ Sub-annual tree ring growth is not merely a strange, sporadic exception to the rule—it is quite common.

Sub-annual rings may, in fact, be even **more** common than is currently realized due to the inability to distinguish between annual and sub-annual rings in many cases. Years ago, writing in the *Smithsonian Miscellaneous Collections*, Glock, Studhalter, and Agerter explained that “a ‘false’ (intra-annual) ring might so closely approach the sharpness of a tree annual as to give a **high degree of uncertainty** in identification,” requiring crossdating to attempt to decipher the “true” age of the tree.¹⁴ They highlight that after years of study, they “failed to reveal any criteria by which” one could distinguish annual from sub-annual tree layers.¹⁵ In apparent exasperation, they exclaim when trying to distinguish sub-annuals in many cases, “how can one be certain of his interpretations?”¹⁶ “In fact, the whole of our work emphasizes the **impossibility** of distinguishing a sharp intra-annual from an equally sharp annual.”¹⁷

Notably, the understood cause of intra-annual tree rings is often unusual weather.¹⁸ Glock, et al. explain, “the nature of the growth layer, whether annual or intra-

annual, **depends upon the variations in the impact of growth factors**, variations which may or may not be annual, and which may or may not be sufficiently intense to make either annual or intra-annual growth layers indistinguishable, one from the other.”¹⁹ “Certain species and certain years show **extreme numbers of intra-annuals** whereas others show only a few. **In some species, it is impossible to find a year lacking multiple growth layers.** The reason for such multiplicity has commonly been held to be **large and repeated fluctuations of soil moisture.**”²⁰ In fact, Mirov acknowledged that in the pines of the White Mountains (where the bristlecones are found), “a semblance of annual rings is formed after **every** rather infrequent cloudburst.”²¹ Ricker, et al. explain that “intra-annual” rings are “caused by **stressful climatic periods** (for example, lack of soil moisture) that divide an annual tree-ring artificially into **at least two.**”²² They also highlight that, “Without crossdating or information on intra-annual climate variability, it may not be possible to distinguish annual and false boundaries.”²³

While the work of the late dendrochronologists Valmore LaMarche and Thomas Harlan of the University of Arizona’s Laboratory of Tree-ring Research²⁴ has prompted some to reject sub-annual tree ring growth as a possibility for bristlecone pines, not all scientists accept their conclusion. Gladwin believed that bristlecone pine tree growth patterns are too erratic for dating at all,²⁵ and based on finding extra rings when studying bristlecone tree saplings, Lammerts argued that the bristlecone chronology could be lowered by at least 1,500 years.²⁶ While it has been argued that statistical methods are available to help eliminate the human interpretation element from the equa-

tion, the statistical methods are still recommended more as support for human visual analysis, rather than replacement of human confirmation.²⁷ Notably, LaMarche and Harlan’s study attempted to substantiate the assertion that the rings of the bristlecone pines are annual (i.e., not sub-annual) rings, coupling the tree ring chronology with radiocarbon dating. However, (1) creationists have shown that radiocarbon dating is unreliable at best,²⁸ (2) evidence suggests that nuclear decay rates were significantly accelerated in the past (apparently due to the Flood and God’s activity during Creation week),²⁹ making ancient trees date as older than they really are, and (3) the acceleration is believed to have continued until roughly 1500-2000 B.C. Radiocarbon dates prior to those dates, therefore, should be “telescoped,” increasing the number of tree rings in a “radiocarbon year.”

Bottom line: sub-annual tree ring growth is not uncommon, and the typical cause of such growth would be conditions that would have been necessitated by the post-Flood Ice Age. The biblical Creation model argues that, due to the Flood,³⁰ the post-Flood ocean would have been much warmer, and the atmosphere would have had elevated volcanic aerosols, cloud cover, and precipitation for several decades (and possibly a few centuries), leading to an Ice “Age”³¹ with unusual cyclical weather

patterns. The conditions were ideal for sub-annual tree ring growth. In the words of Creation scientist John Morris:

As it pertains to Flood model considerations, remember that the centuries immediately following the Flood witnessed the coming of the Ice Age. All trees growing on the continents were recently sprouted, actively growing trees. The still-warm oceans rapidly evaporated seawater, thus providing the raw material for major monsoonal-type storms. Earth was ravaged by frequent and wide-ranging atmospheric disturbances, dumping excessive snowfall in northern regions and rainfall to the south. If ever there was a time when multiple rings could develop in trees, this was it. Those centuries probably produced tree ring growth that was anything but annual. Thus, far from disproving biblical history, tree ring studies provide supportive and instructive information about true history.³²

Tree ring counting cannot be used as proof that the Earth is older than biblical claims. Many of the tree rings in the oldest living trees may have formed sub-annually. But even if every tree ring was, in fact, an **annual** ring, a tree that is over 5,000 years old would still fall below some Flood date estimates, which can be as high as 3,000-4,000 B.C., based upon the implications of

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Moses' wording in the Genesis 11 genealogies.³³

TREE RINGS AND CROSSDATING

That said, while old-Earth advocates assert that there are living trees with over 5,000 tree rings, perhaps few people realize that the oldest trees—namely, the bristlecone pines discussed above—were actually not dated solely using tree ring counting but, instead, “crossdating.” Crossdating is the process of successively overlapping the tree ring patterns from living and dead trees (including fossilized trees and even beams from old houses) further back in history. Some scientists, however, have rightly argued that “[i]t is thus evident that the ‘art’ of cross-matching of tree-rings as thin as a thousandth of an inch or less is very subjective because of being dependent on the **visual assessment of the investigator**.”³⁴ After all, trees growing in the same forest will not always display the same tree ring patterns.³⁵ The renowned expert in dendrochronology, M.G.L. Baillie, warned:

As with conventional jig-saws, some people are better at pattern recognition than others and, if the analogy is not too brutal, there are those who recognise the problems, and those who might try to force the pieces together. It has to be remembered that there is only one correct pattern: each tree has grown only once and ultimately its ring pattern can only fit at one place in time. Simply because two pieces look alike does not necessarily mean that they fit together.³⁶

THE SURVIVAL OF PRE-FLOOD TREES?

Crossdating is an imprecise and often subjective method to be sure, yet it is incorrectly argued that this process can create a chronology reaching back over 8,000 years.³⁷ In response, besides the above issue with crossdating, first we must

understand that only **living** trees would **potentially** create a problem for the Creation/Flood model, and then, only if one assumes that all trees died in the Flood, which may not have been the case.³⁸ The biblical text only says that “all flesh died that moved on the Earth” (Genesis 7:21), but plants are not flesh. In the case of trees, many would have been torn up by Flood processes and carried great distances (in some cases with their root systems still intact). After the Mount St. Helens eruption in 1980,³⁹ trees from the surrounding area were torn down or uprooted by debris flows and transported to Spirit Lake, to be deposited as a giant floating log mat. Some of the trees still had their root ball intact. Thus, over the coming days and weeks, their saturated root ball sank, pulling the trees below the water, only to be “replanted” at the base of Spirit Lake below water. If uprooted pre-Flood trees with their root systems intact had been “replanted” late in the Flood and soon thereafter been uncovered as the waters of the Earth receded (unlike the trees of Mount St. Helens, which are still on and below Spirit Lake), could those trees have survived?

First, keep in mind that all pre-Flood era living species would be expected to be more robust than modern species, since less genetic mutation would have accumulated in their genomes, being much closer in time to Creation. Also, Bert Cregg of the Department of Horticulture and Forestry at Michigan State University noted that even today (after thousands of years of further genetic entropy), “[m]any tree species can survive months under water” in floods.⁴⁰ Whitlow and Harris’ monumental work on the effect of flooding on trees revealed dozens of species that are tolerant (i.e., able to survive deep flooding for one growing season)

and/or very tolerant to flooding (i.e., able to survive deep, prolonged flooding for more than one year⁴¹). If some trees survived the Flood, then living trees with 6,000 or more rings would not be a problem for the Flood model.⁴² [NOTE: It is also possible that Noah brought trees on the Ark (especially those that would provide food for its passengers—Genesis 6:21).]

A “MATURE” CREATION

So, there are no living trees that can be known to be older than when the Flood occurred. The oldest bristlecone pine trees could very well be trees that began to grow immediately after the Flood. But even if cross dating reliably revealed a tree history with thousands upon thousands of tree rings—enough to cause one to question a recent Creation (i.e., six-to-eight thousand years ago)—we must recognize the fact that the biblical model calls for the supernatural creation of fully functional, mature trees from the first day of their existence (so that Adam and Eve, also fully grown, would be able to eat from them, Genesis 2:16-17). Those trees, no doubt, would have been equipped with tree rings since rings help provide strength for mature trees.⁴³ The likelihood of sub-annual tree ring growth in unusual weather like that of the post-Flood Ice Age and a supernaturally created mature Earth dispense with tree ring arguments against a young Earth.

TREE AGES AND CARBON DATING

What about “Old Tjikko,” which is estimated by some to be at least 9,500 years old? Old Tjikko was dated using carbon dating, not dendrochronology, and therefore tends not even to be listed among the verified oldest trees.⁴⁴ In the words of Peter Brown, Director and President of Rocky Mountain Tree-Ring Research,

There has been a lot of focus on [sic] in the media recently about very old trees that are based on radiocarbon dating of a remnant piece of wood in association with a currently living tree that is assumed to have been an ancient stem that reproduced clonally. The most recent example is “Old Tjikko,” a Norway spruce (*Picea abies*) growing in Sweden. The living stem itself is only a few hundred years old, but there is a radiocarbon age of 9,500 years from dead wood present at its base. The living tree is argued to be only the most recent ramet of the much older individual tree genet. However, a 2016 study by G.L. Mackenthun instead argues that there is no evidence of genetic continuity between the dead and living wood portions of the tree, nor is there any evidence of clonal origination of Norway spruce in general. Thus, in the absence of any evidence of genetic continuity between dead and living portions of a stem, especially from a species otherwise not known to commonly reproduce clonally, I do not include such trees in Oldlist.⁴⁵

Even beyond the issues listed above concerning radiocarbon dating, the method is a notoriously imprecise and suspect method due to its frequent anomalies, largely caused by its long-believed, foundational assumption that the ratio of ¹⁴C to ¹²C in the atmosphere has remained constant throughout history, as well as the effect of the Earth’s magnetic field on the production rate of ¹⁴C.⁴⁶ Scientists now know that the ratio is not constant.⁴⁷ So, they attempt to calibrate the ¹⁴C “clock” using other techniques that are largely ineffective beyond recorded history. Archaeologists today, therefore, cannot use ¹⁴C dating as conclusive evidence in dating ancient objects because of such anomalies. So much so that evolutionists admit concerning

carbon dating, “[I]t is not infallible. In general, single dates **should not be trusted**.”⁴⁸

CONCLUSION

As has been the case thousands of times throughout history, skeptics and scoffers will continue to try to chip away at the reliability of Scripture and its record of historical events. When a thorough investigation of their argument is completed, however, the Bible **always** stands unscathed. The latest charge against its accuracy inevitably collapses upon closer examination. And so it is in regard to tree rings allegedly casting doubt on the legitimacy of the Flood and the young age of the Earth implied by the biblical genealogies.

ENDNOTES

- ¹ Bill Nye and Ken Ham (2014), *Uncensored Science: Bill Nye Debates Ken Ham* (Petersburg, KY: Answers in Genesis).
- ² Joseph Castro (2013), “What is the Oldest Tree in the World?” Live Science, <http://www.livescience.com/29152-oldest-tree-in-world.html>.
- ³ “Pinus Longaeva” (2023), The Gymnosperm Database, ed. Christopher J. Earle, April 10, https://www.conifers.org/pi/Pinus_longaeva.php.
- ⁴ Peter Brown (no date), “OLDLIST, A Database Of Old Trees,” Rocky Mountain Tree-Ring Research, accessed 11/26/24, <https://www.rmtrr.org/oldlist.htm>.
- ⁵ Ibid.
- ⁶ Matthew Salzer and Christopher Baisan (2013), “Dendrochronology of the ‘Currey Tree,’” Second American Dendrochronology Conference, University of Arizona, Tucson, May 13-17, https://www.researchgate.net/publication/333058921_Dendrochronology_of_the_Currey_Tree.
- ⁷ Note that other trees are claimed to be extremely old as well, though unverified by dendrochronological examination (e.g., according to folklore, the Lebanese olive trees known as “The Sisters” are said to be the “source of that olive branch brought by the dove back to Noah heralding the end of the flood” [Tara Vassiliou (2012), “Epic Olive Trees,” Olive Oil Times On-line, June 10, <https://www.oliveoiltimes.com/world/epic-olive-trees/26998>]).
- ⁸ Brown.
- ⁹ Ibid.
- ¹⁰ W.S. Glock, R.A. Studhalter, and S.R. Agerter (1960), “Classification and Multiplicity of Growth Patterns in the Branches of Trees,” *Smithsonian Miscellaneous Collections*, 140[1]:1-292.
- ¹¹ Ibid., pp. 56-57, emp. added.
- ¹² Ibid., pp. 121-122; see also Martin Ricker, et al. (2020), “Statistical Age Determination of Tree Rings,” *PLOS One*, 15[9], September 22, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239052>, who found 313 false rings in 29 *Pinus oocarpa* trees out of 1861 rings.
- ¹³ Glock, et al., p. 274, emp. added.
- ¹⁴ Ibid., p. 39, emp. added.
- ¹⁵ Ibid.
- ¹⁶ Ibid., p. 53.
- ¹⁷ Ibid., p. 57, emp. added.
- ¹⁸ E.g., Gerald E. Aardsma (1993), “Tree-Rings Dating and Multiple Growth Ring Per Year,” *Creation Research Society Quarterly*, 29:184-189, March; Walter E. Lammerts (1983), “Are the Bristlecone Pine Trees Really So Old?” *Creation Research Society Quarterly*, 20:108-115, September; Defoliation by insects and periodic infestations have also been shown to affect tree ring patterns—Friedrich, et al. (2004), “The 12,460-year Hohenheim Oak and Pine Tree-Ring Chronology From Central Europe—A Unique Annual Record of Radiocarbon Calibration and Paleoenvironment Reconstructions,” *Radiocarbon*, 46[3]:1111-1122, November.
- ¹⁹ Glock, et al., p. 257, emp. added.
- ²⁰ Ibid., p. 273, emp. added.
- ²¹ N.T. Mirov (1967), *The Genus Pinus* (New

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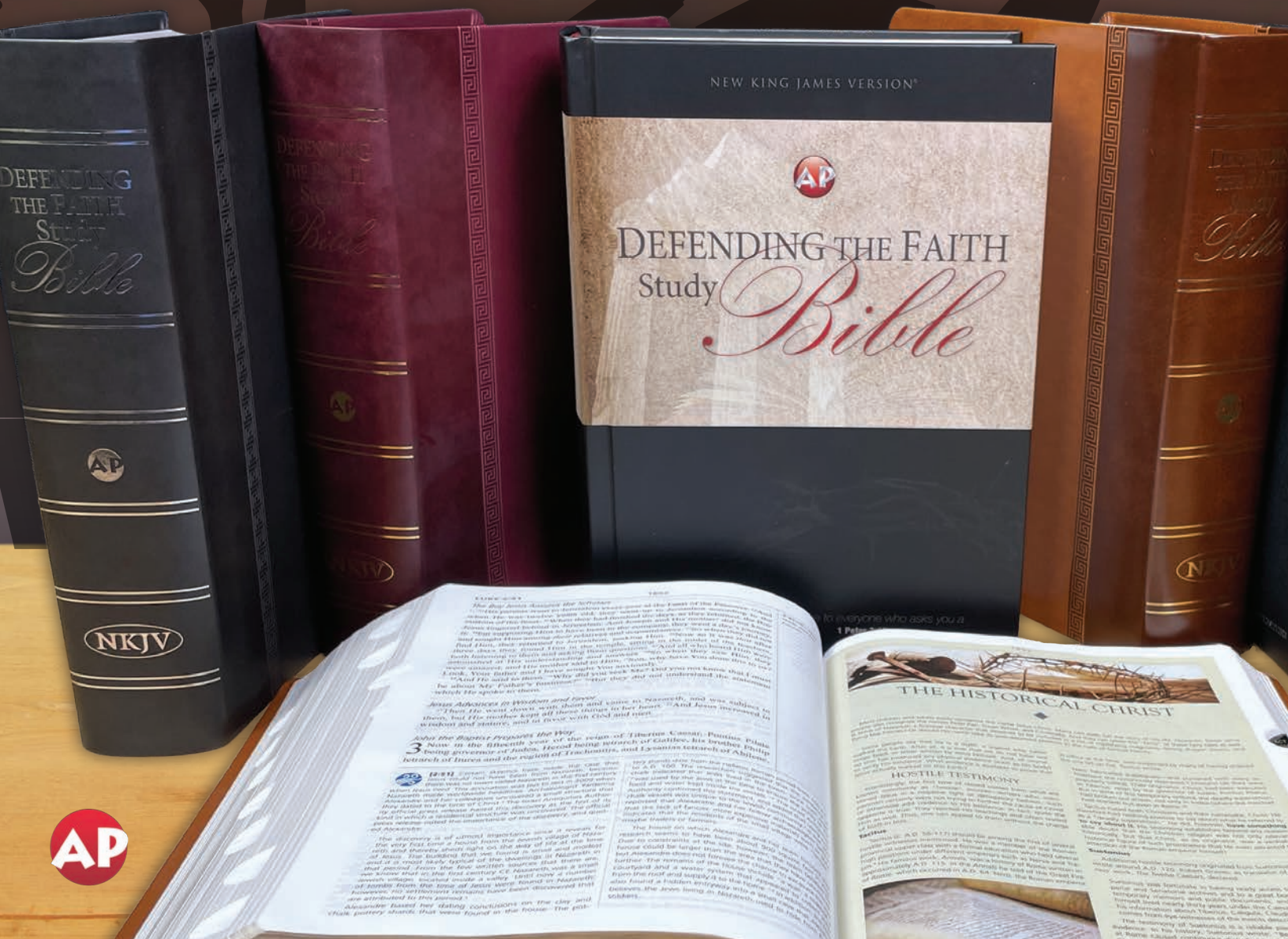
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York: Ronald Press Co.), p. 146, emp. added.

²² Ricker, et al, emp. added.

²³ Ibid.

²⁴ V.C. LaMarche, Jr. and T.P. Harlan (1973), "Accuracy of Tree Ring Dating of Bristlecone Pine For Calibration of the Radiocarbon Time Scale," *Journal of Geophysical Research*, 78:8849-8858.

²⁵ Harold S. Gladwin (1978), "Dendrochronology, Radiocarbon, and Bristlecones," *Creation Research Society Quarterly*, 15:24-26, June.

²⁶ Walter E. Lammerts (1983), "Are the Bristlecone Pine Trees Really So Old?" *Creation Research Society Quarterly*, 20:108-115, September.

²⁷ Jake Hebert, Andrew Snelling, and Timothy Clarey (2016), "Do Varves, Tree-Rings, and Radiocarbon Measurements Prove an Old Earth? Refuting a Popular Argument by Old-Earth Geologists Gregg Davidson and Ken Wolgemuth," *Answers Research Journal*, 9:349, https://assets.answersresearchjournal.org/doc/v9/varves_tree-rings_old_earth.pdf.

²⁸ Michael G. Houts (2015), "Assumptions and the Age of the Earth," *Reason & Revelation*, 35[3]:26-34, March, <https://apologeticspress.org/wp-content/uploads/2021/08/1503w.pdf>.

²⁹ Don DeYoung (2005), *Thousands...Not Billions* (Green Forest, AR: Master Books); Elizabeth Gardner (2010), "Purdue-Stanford Team Finds Radioactive Decay Rates Vary With the Sun's Rotation," *Purdue University News Service*, <http://www.purdue.edu/newsroom/research/2010/100830FischbachJenkinsDec.html>; Steve Reucroft and J. Swain (2009), "Ultrasonic Cavitation of Water Speeds Up Thorium Decay," *CERN Courier*, June 8, <http://cerncourier.com/cws/article/cern/39158>.

³⁰ Jeff Miller (2019), "Was the Flood Global? Testimony from Scripture and Science," *Reason & Revelation*, 39[4]:38-47, April, <https://apologeticspress.org/wp-content/uploads/2021/08/1904w.pdf>.

³¹ Michael Oard (2006), *Frozen in Time* (Green Forest, AR: Master Books).

³² J. Morris (2012), "Tree Ring Dating," *Acts & Facts*, 41[10]:15.

³³ Eric Lyons (2002), "When Did Terah Beget Abraham?" Apologetics Press, <https://apologeticspress.org/when-did-terah-beget-abraham-624/>.

³⁴ Hebert, et al., p. 349, emp. added.

³⁵ David K. Yamaguchi (1986), "Interpretation of Cross-Correlation Between Tree-Ring Series," *Tree-Ring Bulletin*, 46:47-54, <https://repository.arizona.edu/bitstream/handle/10150/261724/trb-46-047-054.pdf?sequence=1&isAllowed=y>.

³⁶ M.G.L. Baillie (1982), *Tree-Ring Dating and Archaeology* (Chicago: University of Chicago Press), p. 23.

³⁷ C.W. Ferguson and D.A. Graybill (1985), "Dendrochronology of Bristlecone Pine," Laboratory of Tree-Ring Research Final Technical Report, University of Arizona at Tucson, <https://arizona.openrepository.com/arizona/bitstream/10150/246033/1/ltrr-0019.pdf>.

³⁸ David Wright (2012), "How Did Plants Survive the Flood?" *Answers in Genesis*, <http://www.answersingenesis.org/articles/aid/v7/n1/how-did-plants-survive-flood>.

³⁹ John Morris and Steven A. Austin (2003), *Footprints in the Ash* (Green Forest, AR: Master Books), pp. 96-103.

⁴⁰ Bert Cregg (2011), "Flood-Tolerant Trees," Michigan State University: Extension, http://msue.anr.msu.edu/news/flood_tolerant_trees.

⁴¹ Thomas H. Whitlow and Richard W. Harris (1979), *Flood Tolerance in Plants: A State-of-the-Art Review*, Environmental & Water Quality Operational Studies Technical Report, pp. 68-129; see also: "9 Trees that Can Survive

Flooding" (2019), Arbor Day Foundation, July 17, <https://www.arborday.org/perspectives/9-trees-can-survive-flooding>.

⁴² Would saltwater have killed any floating trees? Note that (1) the pre-Flood ocean likely had less salinity than present levels, and (2) many tree species are salt-tolerant today, including various species of pine (and many more could have been more salt-tolerant at the time of the Flood which have since either digressed due to genetic entropy or become more adapted to the present salinity level of their ecosystem). See: "Salt Tolerant Evergreen Trees (By Zone)" (2022), Davey: Proven Solutions for a Growing World, February 14, <https://blog.davey.com/salt-tolerant-evergreen-trees-by-zone/>; Yasmin Zinni (2022), "Trees That Grow in Saltwater," *Sciencing*, March 24, <https://www.sciencing.com/trees-that-grow-in-saltwater-13429031/>; Jon M. (2024), "Salt Tolerant Trees (10 Trees

That Can Tolerate Salt)," GreenUpside, Galois Digital Assets, <https://greenupside.com/salt-tolerant-trees-10-trees-that-can-tolerate-salt/>; Ahsen Soomro (n.d.), "7 Common Saltwater Trees that Thrive in the United States," Environment Buddy, <https://www.environmentbuddy.com/plants-and-trees/saltwater-trees/>;

⁴³ Jeff Miller (2011), "Did the Trees of the Garden of Eden Have Rings?" *Reason & Revelation*, 31[11]:116, <https://apologeticspress.org/wp-content/uploads/2021/08/1111web.pdf>.

⁴⁴ Brown.

⁴⁵ Ibid.

⁴⁶ Houts.

⁴⁷ George H. Michaels and Brian Fagan (2003), "Chronological Methods 8—Radiocarbon Dating," University of California Santa Barbara Instructional Development, https://stsmith.faculty.anth.ucsb.edu/classes/anth3/courseware/Chronology/08_Radiocarbon_Dating.html.

⁴⁸ Ibid.

"Fornication" (Porneia) Defined in New Testament Greek Lexicons

Dave Miller, Ph.D.

IN one's efforts to study the Word of God and make certain that God's originally intended meanings are being accessed, it is imperative that the reader set aside all preconceptions, biases, and preferences and allow the Bible to define its own meanings. One important tool for achieving this goal is to make certain that the meanings of the words that the Holy Spirit selected to express Himself are derived from the original language through which He conveyed His message. After all, God did not choose to communicate His words via the English language. While lexicographers and linguistic experts are not perfect—all are susceptible to error—nevertheless, a careful study of the original language, together with an equally careful assessment of the inspired text, will inevitably yield arrival at the truth as God intended.

Considerable confusion has existed over the years in various religious circles concerning Bible teaching about marriage, divorce, and remarriage. On one occasion, Jesus declared forthrightly in His

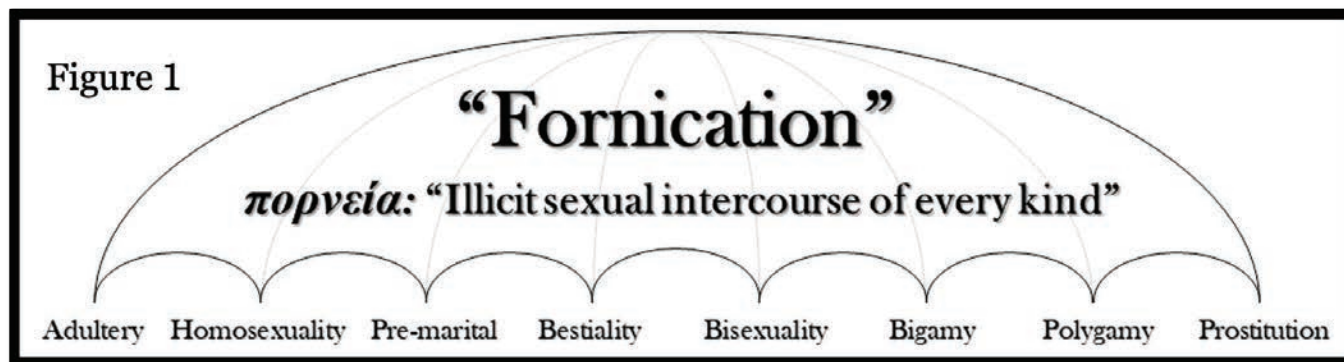
response to inquiring Jews the sole grounds for legitimate divorce: "And I say to you, whoever divorces his wife, except for **sexual immorality**, and marries another, commits adultery; and whoever marries her who is divorced commits adultery" (Matthew 19:9, NKJV).¹ A number of English translations render the word that Jesus used as "sexual immorality."² A number of others render the word "fornication."³ Still others render it "unchastity,"⁴ "whoredom,"⁵ "unfaithfulness,"⁶ "immorality,"⁷ or "adultery."⁸ Observe that while this diversity of rendering is subject to some confusion, they are in general agreement that the ground for divorce centers on sexual sin. In English, the exact nature of this "immorality" is imprecise.

That's where Greek lexicons and other linguistic authorities are helpful. The following chart provides a general survey of how numerous Greek lexicographers have defined the underlying term *porneia* (in Matthew 19:9) and its derivatives over the past 200+ years:⁹

MEANING OF "FORNICATION" IN THE NEW TESTAMENT

Greek Authorities	πορνεία	πορνεύω	πόρνη	πόρνος	πορνεῖον
Danker	unlawful sexual intercourse, prostitution, unchastity, fornication	engage in illicit sex, to fornicate, to whore	one engaged in sexual relations for hire, prostitute, whore	one who practices sexual immorality, fornicator	
Mounce	any kind of illegitimate sexual intercourse, fornication, whoredom, concubinage, adultery, incest, lewdness, uncleanness	to commit any kind of sexual immorality or fornication	a prostitute, a whore, harlot, an unchaste female	a catamite, a fornicator or whoremonger	
Thayer	illicit sexual intercourse in general	to give one's self to unlawful sexual intercourse; to commit fornication	a prostitute, a harlot	a man who indulges in unlawful sexual intercourse, a fornicator	
Moulton & Milligan	prostitution, fornication, unlawful sexual intercourse generally	commit fornication	prostitute	a male prostitute, a fornicator	
Gingrich	unchastity, prostitution, fornication, of every kind of unlawful sexual intercourse	to prostitute, practice prostitution or sexual immorality in general	prostitute, harlot	one who practices sexual immorality, a fornicator	
Donnegan	harlotry, fornication	to render a prostitute; to debauch, to commit fornication; to prostitute one's self	a harlot; a common prostitute	masculine of πόρνη	brothel
Robinson	fornication, lewdness	to commit fornication, to play the harlot	a harlot, prostitute	a male prostitute, catamite	
Green	fornication, whoredom, concubinage, adultery, incest, lewdness, uncleanness	to commit fornication or whoredom	a prostitute, a whore, harlot, an unchaste female	a catamite; in N.T., a fornicator	
Morgan	all kind of uncleanness				
Liddell & Scott	fornication, prostitution, unchastity	to prostitute, debauch	prostitute, harlot		a house of ill-fame, brothel
Sophocles	fornication	to commit fornication		fornicator	
Hickie	fornication	to commit fornication	a harlot	a male prostitute, a fornicator	
Meyer	adultery (in Mt. 19:9)				
Parkhurst	Whoredom, i.e., any commerce of the sexes out of lawful marriage; simple fornication between two unmarried persons; whoredom in a married woman, adultery; incestuous whoredom; all kind of lewdness...all kind of uncleanness	to commit whoredom, to whore	a whore, a woman who prostitutes her body for gain	one who prostitutes himself for gain, a male prostitute, a pathic, a catamite	
Pickering	fornication, adultery	to commit fornication	a harlot who sells and prostitutes her body	a fornicator, primarily, a male who prostitutes his body for hire	a brothel
Berry	fornication	to commit fornication	a harlot, a prostitute	a man who prostitutes himself, a fornicator	
Abbott-Smith	fornication	to prostitute the body for hire, to commit fornication	a prostitute, harlot	a male prostitute, a fornicator	
Bass	fornication, the unlawful commerce of the sexes, adultery, all kinds of lewdness	to commit fornication or adultery	a harlot, prostitute	one who prostitutes himself for gain, a catamite, an impure person	
Hudson	fornication	commit fornication	harlot, whore	fornicator, whoremonger	
Schrevelius	fornication, adultery, incest	to commit fornication	a harlot, who sells and prostitutes her body	a fornicator, a male who prostitutes his body for hire	
Jones	fornication	commit fornication	a woman who sells her person, a prostitute	one who sells his person, a catamite—fornicator	a brothel
Robson	fornication, lewdness, adultery, incest	to commit fornication	a harlot, prostitute, who sells her favours	a male prostitute, catamite, a fornicator	
Loveland	fornication, adultery, incest	to commit fornication	a woman who prostitutes her body for gain	a catamite, a fornicator	
Ewing	whoredom, fornication, adultery, incestuous whoredom, all kinds of lewdness	commit whoredom	a harlot, a woman who prostitutes her body for gain	one who prostitutes himself for gain, a pathic, a catamite, an unclean or impure person	a harlot's house, a brothel
Perschbacher	fornication, whoredom, concubinage, adultery, incest, lewdness, uncleanness	to commit fornication or whoredom	a prostitute, a whore, harlot, an unchaste female	a catamite, a fornicator, impure person	
Hauck/Schulz	whoredom, adultery, incest, harlotry, sodomy, sexual intercourse in general, all extra-marital and unnatural intercourse	to be unfaithful, to play the harlot, to fornicate, to prostitute	prostitute, harlot for hire		

Figure 1



THREE OBSERVATIONS

THREE important observations are in order. First, when the lexicographers note that *porneia* is fornication “of every kind,” “in general,” or “a class of crimes,” they are not referring to various types of sexual activity like touching, caressing, or kissing. Rather, they are referring to multiple forms or types of **sexual intercourse**, including homosexuality, bestiality, and adultery. “Fornication,” therefore, is a generic or “umbrella” term that encompasses different forms of sexual intercourse. See Figure 1, which illustrates the connection between the broad term “fornication” and more narrow terms that identify specific forms of fornication.

Notice, then, that “adultery” is simply a more narrow term than “fornication.”¹⁰ All adultery is fornication, but not all fornication is adultery. The eight terms listed in Figure 1 share in common the fact that each one involves **actual sexual intercourse**.

A second observation concerns the lexicographers’ use of terms to define *porneia* that are either archaic, or with the passing of time, have changed meaning. By examining older dictionaries that clarify the meanings of those English words, we can see that they further verify the intended meaning of *porneia*. Noah Webster’s 1848 *An American Dictionary of the English Language* defined “lewd” as “addicted to for-

nication or adultery” and “harlotry” is defined as “the trade or practice of prostitution; habitual or customary **lewdness**.”¹¹ To act as a “whore” is “to have unlawful sexual commerce; to practice **lewdness**,” “to corrupt by **lewd** intercourse,” and “whoredom” is defined as “**lewdness**; fornication.”¹² A “brothel” is “a house of lewdness; a house appropriated to the purposes of prostitution.”¹³ To “fornicate” is “to commit **lewdness**,” “fornication” is defined as “the incontinence or **lewdness** of unmarried persons, male or female; also, the criminal conversation of a married man with an unmarried woman” as well as “adultery” and “incest,” and a “fornicator” is “a **lewd** person.”¹⁴ “Unchaste” is defined as “not continent; not pure; libidinous; lewd.”¹⁵ “Continency” is defined as “the restraint of the passion for sexual enjoyment; resistance of concupiscence, forbearance of **lewd** pleasures; hence, chastity.”¹⁶ The underlying Greek term in Romans 13:13 rendered in various English translations as “lewdness” (NKJV), “chambering” (KJV), “sleeping around” (CEB), “beds” (DLNT), “sexual promiscuity” (MOUNCE), “debauchery” (RSV), and “sexual immorality” (ESV) is *koitais* from *koitai*, referring to the conjugal bed, and is defined as “sexual intercourse, whoredom.”¹⁷

A third observation concerns the claim by some that “fornication” refers exclusively to sexual activity between **unmarried** persons. It is

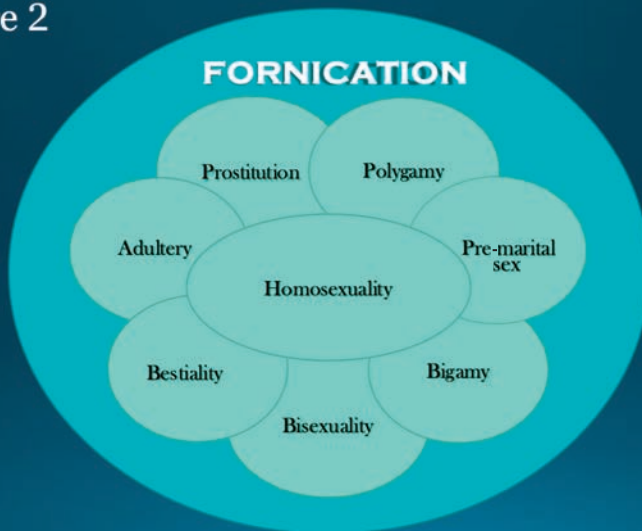
certainly true that over time, words take on different meanings than they once conveyed. But, as we have seen, the meaning of the Greek term rendered “fornication” is decisive in its import. Even without that linguistic information, the English reader can know that the allegation is incorrect. Several passages make this fact plain. For example, the man in the Corinthian church who married his father’s wife was guilty of *porneia* (1 Corinthians 5:1). Likewise, John the baptizer condemned the incestuous (*porneia*) marriage of Herod the Tetrarch to his brother’s wife (Mark 6:17). According to Jude 7, the men of Sodom were guilty of *porneia*. As we have seen, homosexuality is one form of *porneia*. The Israelites committed *porneia* (*ekporneusai*—LXX) with the Moabite women, some of whom were undoubtedly married since they were leaders of the people (Numbers 25:1,4; 1 Corinthians 10:8). What’s more, it is evident from Matthew 5:32 and 19:9 that married people can commit *porneia*. To summarize, Figure 2 illustrates the broad application of the word “fornication” in Scripture.

CONCLUSIONS

THE host of Greek authorities verify the fact that the Bible uses the term *porneia* to refer to physical sexual intercourse. Various derivatives of the word only further confirm this fact.

The older lexicons occasionally use English terms that today may

Figure 2



not convey this singularly precise meaning. But by consulting both the drift of the context in which the terms are used as well as the English dictionaries that were contemporaneous with those Greek sources, one can conclude that those terms were intended as synonyms for physical sexual intercourse.

These synonymous terms include: “lewdness,” “unchastity,” “debauchery,” “whoredom,” “uncleanness,” “impurity,” “commerce,” “incontinence,” and “sexual immorality.”

While sinful in their own right, neither the viewing of pornography nor those sinful actions that precede sexual intercourse—which are embodied in such Bible terms as “lust” and “lasciviousness”—fall within the purview of the meaning of “fornication” in the New Testament.

ENDNOTES

- ¹ Some scholars have challenged the textual legitimacy of the “exceptive” clause in this verse, but the point is moot since the clause occurs also in Matthew 5:32 where its textual legitimacy is firm. See Bruce Metzger (1994), *A Textual Commentary on the Greek New Testament* (New York, NY: United Bible Society, second edition), p. 38.
- ² CSB, CJB, DLNT, EHV, ESV, EXB, HCSB, ISV, LEB, MEV, MOUNCE, NASB, NIV,

NKJV, TLV, WEB. The CEB has the equivalent expression “sexual unfaithfulness.” The CEV has “some terrible sexual sin.” The ERV has “the problem of sexual sin.” The EXB and NCV have “his wife has sexual relations with another man.” The ICB has “his first wife has been unfaithful to him.” The NIV has “sex sins.” The RGT has “promiscuity.”

- ³ ASV, BRG, DARBY, DRA, JUB, KJV, TLB, MNB, OJB, WYC.
- ⁴ AMPC, NRSV, RSV.
- ⁵ GNV, YLT.
- ⁶ GW, GNT, PHILLIPS, NOG.
- ⁷ NASB1995, NET, NTE, TPT.
- ⁸ MSG, VOICE, WE.
- ⁹ Frederick Danker (2000), *A Greek-English Lexicon of the New Testament and Other Early Christian Literature* (Chicago, IL: University of Chicago), third edition, pp. 854-855; William Mounce (2006), *Complete Expository Dictionary of Old and New Testament Words* (Grand Rapids, MI: Zondervan), pp. 126,268,638-639,1251; Joseph Thayer (1901), *A Greek-English Lexicon of the New Testament* (New York: American Book Company), p. 532; James Moulton and George Milligan (1930), *Vocabulary of the Greek New Testament Illustrated from the Papyri and Other Non-literary Sources* (Grand Rapids, MI: Eerdmans, 1982 reprint), p. 529; F. Wilbur Gingrich (1965), *Shorter Lexicon of the Greek New Testament* (Chicago, IL: The University of Chicago Press), p. 180; James Donnegan (1836), *A New Greek and English Lexicon* (Boston, MA: Hilliard, Gray, & Co.), p. 1031; Edward Robinson (1836), *A Greek and English Lexicon of the New Testament* (Boston, MA: Crocker & Brewster), pp. 690-691; Thomas Green (1896), *A Greek-English Lexicon to the New Testament* (Boston, MA: H.L. Hastings), p. 152; Henry Liddell and Robert Scott (1901), *A Greek-English Lexi-*

- con* (Oxford: Clarendon Press), p. 1256; E.A. Sophocles (1914), *Greek Lexicon of the Roman & Byzantine Periods* (Cambridge, MA: Harvard University Press), p. 911; W.J. Hickie (1977 reprint), *Greek-English Lexicon to the New Testament* (Grand Rapids, MI: Baker), p. 157; Heinrich Meyer (1881), *Critical & Exegetical Handbook to the Gospel of Matthew* (Edinburgh: T.&T. Clark), 2:26; John Parkhurst (1804), *Greek and English Lexicon to the New Testament* (London: G.&J. Robinson), pp. 554-555; John Pickering (1832), *A Greek and English Lexicon* (Boston, MA: Hilliard, Gray, Little, & Wilkins), p. 741; Hector Morgan (1826), *The Doctrine and Law of Marriage, Adultery, and Divorce* (Oxford: J. Parker), 2:398; George Berry (1897), *A New Greek-English Lexicon to the New Testament* (New York: Hinds & Noble), p. 82; G. Abbott-Smith (1922), *Manual Greek Lexicon of the New Testament* (New York: Charles Scribner's Sons), pp. 373-374; J.H. Bass (1844), *A Greek & English Manual Lexicon to the New Testament* (London: I.J. Chidley), p. 185; Charles Hudson (1892), *A Critical Greek & English Concordance of the New Testament* (London: Samuel Bagster & Sons), p. 339; Cornelius Schrevelius (1826), *The Greek Lexicon of Schrevelius* (Boston, MA: Cummings, Hilliard, & Co.), p. 692; John Jones (1825), *The Tyro's Greek & English Lexicon* (London: Longman, et al.), p. 1040; Charles Robson (1839), *A Greek Lexicon to the New Testament* (London: Whittaker & Co.), p. 387; Samuel Loveland (1828), *A Greek Lexicon Adapted to the New Testament* (Woodstock, VT: David Watson), p. 259; Greville Ewing (1827), *A Greek & English Lexicon* (Glasgow: James Duncan), pp. 714-715; Wesley J. Perschbacher, ed. (1990), *The New Analytical Greek Lexicon* (Peabody, MA: Hendrickson), p. 340; Friedrich Hauck and Siegfried Schulz (1982 reprint), “*pornai, pornos, porneia, porneuo, ekporneuo*” in *Theological Dictionary of the New Testament*, ed. Gerhard Friedrich (Grand Rapids, MI: Eerdmans), 6:579-595.
- ¹⁰ Hauck and Schulz agree: “*moicheuo* is narrower than *porneia* and refers solely to adultery” (6:581).
 - ¹¹ Noah Webster (1848), *An American Dictionary of the English Language* (New York: Harper & Brothers), pp. 593, 478.
 - ¹² *Ibid.*, pp. 1136-1137.
 - ¹³ *Ibid.*, p. 129.
 - ¹⁴ *Ibid.*, p. 424.
 - ¹⁵ *Ibid.*, p. 1067.
 - ¹⁶ *Ibid.*, p. 222.
 - ¹⁷ Thayer, p. 352; Samuel Bagster (no date), *The Analytical Greek Lexicon* (London: Samuel Bagster & Sons), p. 227.



NOTE FROM

The Editor

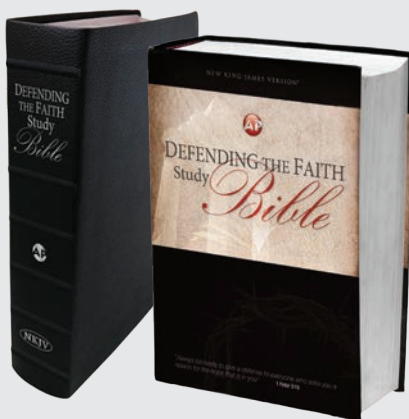


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